

DIELECTRIC PASTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
BARIUM TITANATE	66.5	6.65	68.55	68.55	68.55	68.55	68.55	65.74	65.74	66.11	62.88	62.88	62.88	62.22	59.89	59.89	66.5	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	68.55	
LITHIUM FLUORIDE				1.0		1.0	1.0											1.0	1.0		0.21	0.21	0.21	0.21	0.21	0.16	1.0	1.0	1.0	1.0	
LITHIUM CARBONATE					2.6			1.58	1.58	1.39	1.32	1.32	1.32	1.44	1.44	1.44	1.4			1.4	0.62	0.62	0.62	0.62	0.62	0.47					
BARIUM FLUORIDE		1.36	1.18				1.36											1.36	1.36		1.25	1.25	1.25	1.25	1.11	1.11	1.36	1.36	1.36	1.36	
ZINC FLUORIDE		0.74						2.16	2.1	1.89	1.8	1.8	1.8	2.28	1.96	1.96	1.9	0.74	0.74	1.9	1.37	1.37	1.37	1.37	1.37	1.27	0.74	0.74	0.74	0.74	
CALCIUM FLUORIDE						2.0																									
MANGANESE FLUORIDE			0.92				0.74																								
MAGNESIUM FLUORIDE																								0.15	0.15	0.15					
ZIRCONIA	3.9							3.86	3.86	3.88	4.73	4.73	4.73	4.68	5.4	5.4	3.9			1.0	1.0	1.5	2.0	1.5	1.0	1.0					
GLASS A	11.8	10.3	10.25			9.3	12.0	11.67	11.67	11.73	14.28	14.28	14.28	14.13	16.3	16.3	11.8	10.25	10.25								10.25	10.25	10.25	10.25	10.25
GLASS B			1.0				1.0											1.0	1.0						16.0	16.0	1.0	1.0	1.0	1.0	1.0
GLASS C			1.0				1.0											1.0	1.0								1.0	1.0	1.0	1.0	1.0
GLASS D				12.25	12.25															16.0	16.0	16.0	16.0	16.0							
VEHICLE	6.6	6.5	5.9	7.5	7.1	6.5	6.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	6.6	5.9	5.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.9	5.9	5.9	5.9	5.9
SOLVENT 1	9.7	11.5	8.7	9.2	8.0	11.05	8.75	8.05	8.05	8.05	8.05	8.05	7.8	8.05	8.05	8.05	9.7	8.7	8.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	8.7	8.7	8.7	8.7	8.7
SOLVENT 2																				10.4	10.4	10.4	10.4	10.4	10.4	10.4					
OXIDIZER	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	1.0	1.0	1.0
PHOSPHATE WETTING AGENT	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.45	0.45	0.45	0.45	0.7	0.45	0.45	0.45	0.45	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
TOTAL	100.0	100.55	99.0	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	99.99	99.99	99.99	99.99	105.45	100.0	100.0	108.75	108.9	109.4	109.9	109.4	107.6	107.91	100.0	100.0	100.0	100.0	100.0

FIG. 1

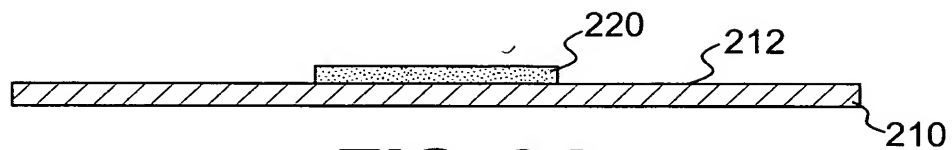


FIG. 2A

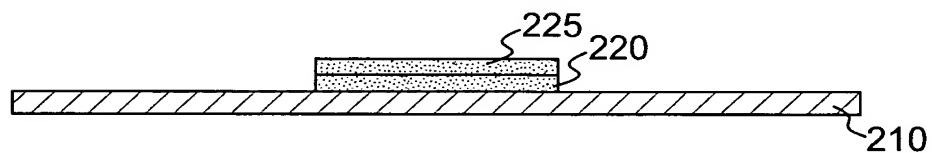


FIG. 2B

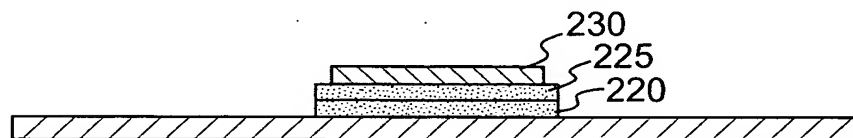


FIG. 2C

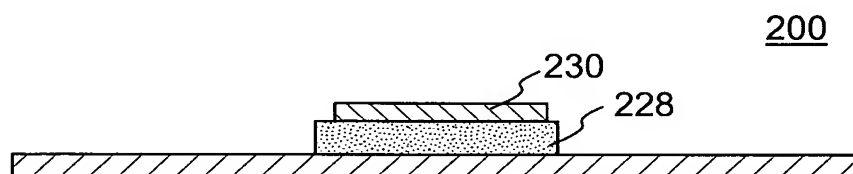


FIG. 2D

DIELECTRIC SAMPLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
COPPER UNDERPRINT	A	A	A	A	A	A	A	A	B	B	A	B	C	A	A	C	A	A	B	A	A	A	A	A	A	A	A	D	D	E	E
COPPER ELECTRODE	A	A	A	A	A	A	A	A	B	B	A	B	C	A	A	C	A	A	B	A	A	A	C	A	A	A	A	A	D	A	E
KAT ROOM TEMPERATURE	690	677	833	1408	1110	755	1190	2413	1200	2467	1500	1773	950	1677	1234	1357	3326	4830	3236	3064	3643	2857	2545	2070	3530	2837	4441	4041	2900	1300	
DF % AT 10 KHz	5.5	2.3	7.1	4.0	6.0	1.5	0.4	2.5	0.3	1.4	2.5	4.1	1.6	1.5	3.8	1.4	2.0	1.0	0.4	1.7	1.7	1.1	1.0	0.5	2.5	1.0	1.0	0.8	0.9	21.8	
CURIE POINT °C	125	125	125	45	-15	105	-35	5	-50	0	40	25	-15	-15	45	-20	15	25	0	15	15	15	15	15	25	-15	5	5	5	4.5	
KAT CURIE POINT	1242	982	1218	1449	1325	1120	1312	2576	1787	2875	1609	1773	1495	1984	1533	1495	3393	4830	4830	3243	3795	2760	2829	3105	3530	3512	4961	4860	3329	1385	
BaTiO ₃ GRAIN SIZE (MICRONS)	0.5-0.5	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5	0.5-2.0	0.3-1.0	0.3-2.0	0.3-1.0	0.3-1.0	0.3-1.0	0.3-1.5	0.3-1.0	0.3-1.0	0.5-3.0	1.0-8.0	1.0-8.0	1.0-4.0	1.0-6.0	1.0-6.0	1.0-3.0	1.0-4.0	1.0-8.0	1.0-8.0					

FIG. 3